METHOD AND APPARATUS FOR PROGRAMMABLE LEXICAL PACKET CLASSIFIER

ABSTRACT OF THE DISCLOSURE

A packet classification language (PCL) is provided to specify data packets in a

5   routing device. The PCL uses regular expressions to match incoming data packets. Class identifiers associated with each regular expression identifies the class to which each recognized packet belongs for subsequent processing. A PCL compiler produces a DFA which recognizes the data packets as defined by the regular expressions. A hardware implemented DFA is used to scan the input stream which constitutes the data packets.

10

PA 3053721 v4